

REMARKS

I. Status Summary

Claims 1-20 are pending in the present application. Claims 1-20 presently stand rejected. Claims 9 and 19 have been amended.

II. Claim Rejection - 35 U.S.C. § 112

Claims 5, 9, 15 and 19 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In particular, for claims 5 and 15, the Examiner stated the open ended range of fibers having a denier greater than 15 is unduly broad. For claims 9 and 19, the exemplary language "such as" that is used to link the non-fibrous elements feature to the terms foam and sponge is vague and indefinite because one of ordinary skill in the art could not interpret the metes and bounds of the claim so as to understand how to avoid infringement.

Response to the Rejection of the Claims Based on 35 U.S.C. §112

Concerning claims 5 and 15, Applicants respectfully submit that the claims as stated are not unduly broad to one of ordinary skill in the art. The Examiner states that the denier range encompassed by claim 5 that will also meet the limitations and features of claim 1 cannot be readily ascertained by one of ordinary skill in the art.

First, Applicants respectfully submit that the phrase "a denier of 15 or greater" used in claims 5 and 15 states in no uncertain terms what is being claimed and is perfectly clear to one of ordinary skill in the art. The specification as well as the

claims clearly stated that the filler material may comprise of monofilaments of a denier of 15 or greater. One of ordinary skill in the art clearly knows that denier is a measure of mass per unit length. In particular, denier equals grams/9000 meters.

Second, claim 1 is not limited to a specific fiber or a specific diameter as measured in microns as suggested by the Examiner. Further, claim 5 and 15 are not limited to a specific fiber or fiber diameter. The specification of the current application clearly discloses use of different types of composition of fibers (polyolefins, polyamides, polyester, natural fibers and combinations thereof) and different sized fibers for use as/in the filler material. (See, current application, page 17, line 7- page 18, line 8.) Thus, one of ordinary skill in the art would clearly understand from the specification that the fibers used within the filler material can be of different composition and size.

Third, during patent examination, the pending claims must be given their broadest reasonable interpretation consistent with the specification. (See MPEP § 2111, citing In re Hyatt, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000), emphasis added.) Both the specification and the claims recite that filler material may comprise “fibers.” Specifically, claims 5 and 15 recite “monofilament or multifilament fibers having a denier greater than 15.” (emphasis added.) One of ordinary skill in the art would understand “fiber” as used in the specification and claims of the current application to be a unit of matter, either natural or manufactured, that forms the basic structure of a fabric (such as a knitted fabric, woven fabric or nonwoven fabric) and other textile structures. As a practical matter, fibers, such as

monofilaments and multifilaments, are generally not made in a size that would be too large for use within a gutter and still be considered a fiber. For example, an extremely large filament fiber would have a denier of 15,000. For a filament having a denier 15,000 made of a polyolefin, polyamide, polyester, or combinations thereof the diameter of the filament would be no more than a few millimeters. Such fibers could clearly still be used within a gutter.

Thus, Applicants respectfully submit that one of ordinary skill in the art would clearly understand what a monofilament of a denier of 15 or greater comprises. Further, one of ordinary skill in the art, in light of the specification and claims, would understand the scope so as to avoid infringement. Therefore, Applicants respectfully request that the Examiner withdraw the rejection of claims 5 and 15 under 35 U.S.C. §112, second paragraph.

Regarding claims 9 and 19, the Applicants respectfully submit that these claims have been amended to more distinctly identify the subject feature by removing the language "such as" as shown in the claims above. Therefore, Applicants respectfully submit that the rejection under 35 U.S.C. §112, second paragraph, concerning claims 9 and 19 has been addressed.

III. Claim Rejection - 35 U.S.C. § 103

Claims 1 and 11 are rejected under 35 U.S.C. § 103(a) as being anticipated over U.S. Patent No. 3,855,132 to Dugan (hereinafter "Dugan"). Claims 2-4, 6-8, 12-14 and 16-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Dugan as applied to claims 1 and 11, respectively, in view of U.S. Patent No.

6,200,669 to Marmon (hereinafter "Marmon"). Claims 5, 9, 10, 15, 19 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Dugan as applied to claims 1 and 11, respectively, in view of U.S. Patent No. 5,776,567 to Schilling (hereinafter "Schilling").

To establish *prima facie* case of obviousness, the Examiner must meet the following criteria. First, there must be some suggestion or motivation either in the reference itself or the knowledge generally available to one of ordinary skill of the art, to modify the reference. See MPEP § 2143. Second, there must be a reasonable expectation of success. Id. Third, the prior art reference must teach or suggest all the claim elements. Id. In view of all the factual information, a determination must then be made as to whether the claimed subject matter as a whole would have been obvious at the time to that person. See MPEP § 2142. Impermissible hindsight must be avoided and a legal conclusion of obviousness must be reached on the basis from the facts gleaned from the prior art. Id. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. See MPEP §2143.01.

Summary of the Rejected Independent Claims Under 35 U.S.C. §103

Independent claim 1 recites a combination of a roof gutter of a type for collecting rain and channeling the rain to a downspout or the like and a porous filler material comprising fibers, foam or combinations thereof. The overall density of the porous filler material is between about 10% and 70% by volume fraction and the

pores are elongated and generally extend in a lengthwise direction of the porous filler material. The porous filler material is positioned in the roof gutter so as to substantially fill the roof gutter and such that the pores generally extend in the rain flow direction. The rainwater from the roof will readily pass through the porous filler material and be channeled away, and leaves, pine straw and other similar debris will be prevented from entering the roof gutter.

Independent claim 11 recites a method of preventing leaves, pine straw and similar debris from entering a roof gutter while allowing rainwater and the like to readily enter the roof gutter and be channeled away to a downspout or the like. The method includes providing a roof gutter adjacent the roof of a residential or commercial building. A porous filler material comprising fiber, foam, or combinations thereof is inserted into the gutter so as to substantially fill the gutter with porous filler material. The porous filler material has an overall density between about 10% and 70% by volume fraction. The pores thereof are elongated and generally extend lengthwise in the direction of the porous filler material. The pores also generally extend in the rain flow direction within the gutter. Rainwater from the roof will readily pass through the porous filler material and be channeled away. The leaves, pine straw and similar debris will be prevented from entering the roof gutter.

Arguments Against the Rejection of the Claims Based on 35 U.S.C. §103

Applicants respectfully submit that Dugan does not render obvious independent claims 1 and 11. In particular, Applicants respectfully submit that Dugan does not disclose, teach, or suggest each and every feature of claims 1 and 11. For

example, Dugan does not disclose, teach, or suggest that the pores are elongated and generally extend in a lengthwise direction of the porous filler material or that the pores generally extend in the rain flow direction within the gutter.

Applicants respectfully submit that, contrary to the Examiner's assertion, the features recited in claims 1 and 11 of the pores extending in a lengthwise direction do have structural significance. In particular, as would clearly be understood by one of ordinary skill in the art, lengthwise direction is the direction along the length of the filler material as it extends along the length of the gutter. Such a feature would be clear to one of ordinary skill in the art. Therefore, applicants respectfully submit that the feature of the pores extending in a lengthwise direction has significant meaning to the claim. Further, regarding claim 11, a further feature of the pores extending in the rain flow direction within the gutter reinforces that the pores extend in a lengthwise direction along the length of the gutter to help direct the rain flow within the gutter.

As previously discussed in the Amendment filed on April 5, 2006, Dugan discloses a gutter fitted with sections of porous foam that occupy the entire volume define by the gutter or that occupy the gutter except for an open passage left between the foam and the bottom wall of the gutter. While Dugan states that the foam must be porous, it does not disclose, teach, or suggest that the pores generally extend in a lengthwise direction of the foam within the gutter or in the rain flow direction within the gutter.

As properly noted by the Examiner, reticulated porous foam material of Dugan is a random distribution of pores, which by its very nature would not be generally

extending in a lengthwise direction. At best, only a small percentage of such random pore distribution would extend in such a direction. As claimed by independent claims 1 and 11, the pores recited therein particularly and specifically extend generally in the lengthwise direction. Such specific direction in which the pores generally extend is the exact opposite of the randomness that reticulated porous foam material would create. Thus, Applicants respectfully submit that, at best, Dugan does not disclose, teach, or suggest that the pores extend generally in a lengthwise direction, and, most probably, Dugan would direct one of ordinary skill in the art away from such a construction of the pores.

For at least the reasons set forth above, Applicants respectfully submit that claims 1 and 11 are not rendered obvious by Dugan. Therefore, Applicants respectfully submit that the rejection of claims 1 and 11 be withdrawn and the claims allowed at this time.

Applicants also respectfully submit that the claims 2-4, 6-8, 12-14, and 16-18 are not rendered obvious by Dugan in view of Marmon. Claims 2-4 and 6-8 depend from claim 1, while claims 12-14 and 16-18 depend from claim 11. As stated above, Dugan does not disclose, teach, or suggest all the elements of claims 1 and 11. Applicants respectfully submit that Marmon does not overcome the significant shortcomings discussed above with regard to Dugan.

Marmon discloses nonwoven fabrics that are formed by substrate of multi-component fibers. The multi-component fibers are comprised of at least two components or each component is partially exposed on the outer surface of the

multi-component fiber. The multi-component fibers are bonded to the substrate and thereafter the bonded substrate of multi-component fibers are entangled through hydroentangling. During hydroentangling, the individual components become separated from the multi-component fibers and the multi-component fibers and components separate therefrom become entangled to form an integrated nonwoven web. (See, Marmon, col. 2, lines 28-59.) Marmon does not disclose, teach, or suggest that the nonwoven web have elongated pores and further does not disclose, teach, or suggest that such pores should extend in a lengthwise direction as specifically recited in claims 1 and 11.

Further, there is no motivation to combine Dugan with Marmon other than the hindsight provided by the Applicants' own application. Dugan does not disclose, teach, or suggest substitution of its reticulated foam material with the hydroentangled nonwoven fabric as disclosed in Marmon. Marmon does not disclose, teach, or suggest that its hydroentangled, flat nonwoven could be a substitute for the reticulated foam material of Dugan. The nonwoven of Marmon assumes a relatively flat web that has a cloth-like feel. (See, Marmon, col. 12, lines 32-36.) Suggested usages for the nonwoven fabric include washable reusable fabrics, useable or disposable wipes, including special cleaning applications for lenses, glasses or pre-metal printing surfaces as well as garments and personal health products and infection control products. Further, Marmon suggests that the fabric may be used in barrier fabrics by laminating the nonwoven to a liquid impervious microporous film. (See, Marmon, col. 12, line 60-col. 13, line 12.) Nothing in Dugan or Marmon would

motivate one of ordinary skill in the art to replace the reticulated foam of Dugan with the nonwoven disclosed in Marmon.

For these above reasons, claims 2-4, 6-8, 12-14, and 16-18 are not rendered obvious by Dugan in view of Marmon. Therefore, Applicants respectfully submit that rejections of claims 2-4, 6-8, 12-14, and 16-18 be withdrawn and claims allowed at this time.

Regarding claims 5, 9, 10, 15, 19, and 20, Applicants respectfully submit that Dugan in view of Schilling does not render these claims obvious. In particular, Schilling does not overcome the significant shortcomings outlined above of Dugan.

Claims 5, 9, and 10 depend from claim 1 while claims 15, 19, and 20 depend from claim 11. As outlined above, Dugan does not disclose, teach, or suggest that the pores of the filler material extend in a lengthwise direction or that the pores extend in the direction of the rain flow within a gutter. As previously discussed in the Amendment filed on April 5, 2006, Schilling does not disclose, teach, or suggest pores that generally extend lengthwise in the direction of the porous filling material and in the direction of the rain flow within the gutter. Schilling discloses a multi-layered filter for separating solids and liquid waste. The filter 100 includes multiple layers of dense woven and nonwoven fabric and netting. Schilling does not disclose that the porous cloth 105 or the layer 103 of fibrous mat or fibrous nonwoven should form pores that extend generally in a lengthwise direction or in the direction of rain flow in the gutter. Further, Schilling does not disclose, teach, or suggest that the

large interstices within netting layers 104 and 102 generally extend in a lengthwise in the direction of the filter and direction of the liquid flow in the gutter.

First, Applicants contend that the large interstices of the netting layers 104 and 102 are too large to be classified as pores. Second, even if such large interstices were classified as pores, the equal spacing of the parallel strands of the sub-layers form interstices shapes that are not elongated do not generally extend in a lengthwise direction or the direction of the rain flow. Interstices of layers 102 and 104 are, for example, square or diamond shaped having no elongation or in the shape of an angular parallelogram that has a longer axis than the other. However, even if the larger interstices are in the shape of angular parallelogram, the longer axis of a parallelogram would extend at an angle to the channel formed between parallel strands as shown in Figure 2, which directs the flow of liquid in the filter. Since the longer axis of the parallelogram would extend in an angle to the channels that direct the liquid flow, layers 102 and 104 of Schilling teach away from any elongation of the large interstices 210 extending in a direction of liquid flow.

For these above reasons, claims 5, 9, 10, 15, 19, and 20 are not rendered obvious by Dugan in view of Schilling. For at least the reasons outlined above, Applicants respectfully submit that the rejection of these claims should be withdrawn and the claims allowed at this time.

CONCLUSION

In light of the above amendments and remarks, it is respectfully submitted that the present application is now in proper condition for allowance, and an early notice to such effect is earnestly solicited.

If any small matter should remain outstanding after the Patent Examiner has had an opportunity to review the above Remarks, the Patent Examiner is respectfully requested to telephone the undersigned patent attorney in order to resolve these matters and avoid the issuance of another Official Action.

DEPOSIT ACCOUNT

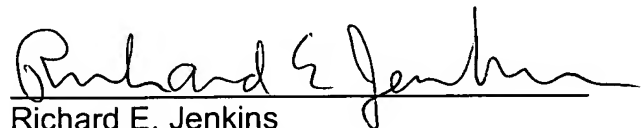
The Commissioner is hereby authorized to charge any fees associated with the filing of this correspondence to Deposit Account No. 50-0426.

Respectfully submitted,

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